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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/627,514

07/25/2003

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075834.00419

3253

33448

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10/14/2004

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EXAMINER

SHAH, MANISH S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/627,514 | Applicant(s) FUKUDA ET AL. | |
| | Examiner Manish S. Shah | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7/6 is/are allowed.
- 6) ☒ Claim(s) 1-5,7/4,7/5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

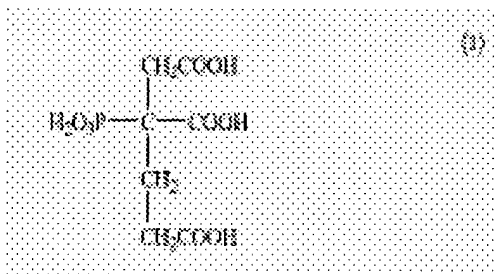
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

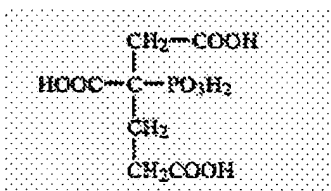
1. Claims 1-5, 7/4 & 7/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (# US 6383275) in view of Ishikawa et al. (# US 4960684).

Lin discloses an ink for use in ink jet recording, the ink includes a dye (column: 14, line: 15-20); water (column: 5, line: 45-55) and organic phosphonic compound (column: 9, line: 5-10), wherein organic phosphonic compound content in the range of 0.001 to 10% by weight (column: 9, line: 55-60). They also disclose a inkjet recording method including step of ejecting an ink from nozzle on to recording medium (column: 20, line: 5-45). They also disclose that the ink jet recording apparatus including recording head including reservoir for accommodating ink, a heater device, and a nozzle (column: 20, line: 20-45).

Lin differs from claim of the present invention is that the organic phosphonic compound being represented by the formula:



Ishikawa et al. teaches that to improve the liquid stability, liquid composition includes the organic phosphonic compound represented by the formula as shown below (column: 3, line: 19-25; column: 8, line: 45-55; column: 12, line: 50-60).



It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the organic phosphonic compound of Lin by the aforementioned teaching of Ishikawa et al. in order to improve the liquid stability, which increases the storage stability of the ink composition.

Allowable Subject Matter

2. Claims 6 & 7/6 are allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of claims 6 & 7/6 is that applicant's claimed invention includes a method for treating an inkjet recording head including introducing a surface treating solution containing an organic phosphonic compound into the reservoir

not filled with ink so as to put the heater device in contact with the surface treating solution; and heating the heater device so that the surface of the heater device is treated with the organic compound. It is this limitation, expressed in the claimed combination not found, taught or suggested in the prior art, that makes these claims allowable over the prior art.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Mielke et al. (# US 6770331) discloses the colorant preparation including a dye (column: 4, line: 15-65), water (see Abstract) and an organic phosphonic compound (column: 12, line: 55-66).

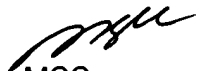
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Examiner
Art Unit 2853


MSS
10/12/04